

- i Title Page with Airport Manager's signature 139.203(a)(1)
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A. General

1. This Airport Certification Manual establishes the safety standards for the \_\_\_\_\_ Airport in accordance with Part 139 of the Federal Aviation Regulations. All airport personnel shall comply with the provisions of this Manual in the conduct of their official duties at the airport.

2. Inspection Authority. FAR 139.301 The \_\_\_\_\_ Airport shall allow the FAA Administrator to make any inspections, including unannounced inspections, or tests to determine compliance with Part 139 of the Federal Aviation Regulations and this Manual.

3. Exemptions and Limitations. 139.111 and 139.205(b)(2) and (3) The airport is subject to the following exemptions from the requirements of FAR 139: (list any by exact Section # and date of expiration of exemption). OR The airport is not subject to any exemptions or limitations under FAR 139.

4. Noncomplying Conditions. 139.343 Unless otherwise authorized by the FAA Administrator, whenever the requirements of Subpart D, Operations, of FAR 139 cannot be met to the extent that uncorrected unsafe conditions exist on the airport, the (certificate holder name) shall limit air carrier operations to those portions of the airport not rendered unsafe by those conditions.

5. Deviations. 139.113 In emergency conditions requiring immediate action for the protection of life or property, involving the transportation of persons by air carriers, the (certificate holder name) may deviate from any requirement of Subpart D of Part 139 of the Federal Aviation Regulations to the extent required to meet that emergency. In such an event, the (certificate holder name) shall, as soon as practicable, but not later than 14 days after the emergency, report in writing to the FAA Airports Division Manager stating the nature, extent, and duration of the deviation.

6. Definitions. 139.3

- a. Air carrier - an air carrier while operating aircraft with more than 30 passenger seats.
- b. Air carrier operation - the takeoff or landing of an air carrier aircraft including the period of time from 15 minutes before and until 15 minutes after the takeoff or landing.
- c. Movement Area - the runways, taxiways, and other areas of the airport which are used for taxiing, hover taxiing, air taxiing, takeoff and landing of aircraft, exclusive of loading ramps and aircraft parking areas.
- d. Safety Area - a designated area abutting the edges of a runway or taxiway intended to reduce the risk of damage to an aircraft inadvertently leaving the runway or taxiway.

## B. Organization and Management

1. Personnel. 139.303 The (certificate holder name) shall maintain sufficient qualified personnel to comply with the requirements of this Airport Certification Manual and the requirements of Part 139 of the Federal Aviation Regulations.

2. Personnel Responsibilities. 139.205(a) (Brief job descriptions of key personnel such as manager, director of operations, maintenance supervisor, fire chief, security chief, ARFF Training Officer etc. as applicable.)

3. Line of Succession. 139.205(b)(1) The \_\_\_\_\_ Airport is operated by a (City Department, Commission, Authority etc.). The airport is under the direct control of an (airport manager) appointed by (City Council, Mayor, Chairman, etc.) In the absence of the (airport manager), the line of succession for airport operational responsibility is:

(List)

### C. Airport Information

1. Facilities. The \_\_\_\_\_ Airport is owned and operated by the (certificate holder name). It is located approximately (miles, direction) of the central business district of the (associated city), at an elevation of ( ) feet. The airport provides [fuel, line services, terminal facilities, and an instrument approach using a (type of navaid).] Air Traffic Control services are provided by (Control Tower if any, or Center or approach control facility).

2. Air Carrier Movement Areas. 139.205(b)(5) and (7)  
The movement area is the runways, taxiways, and other areas of the airport which are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and aircraft parking areas. Air carrier movement areas are shown on (Fig., Exhibit\_\_\_\_) and are described as follows:

<u>Runway</u>	<u>Length</u>	<u>Width</u>	<u>Surface</u>	<u>Strength</u>	<u>Safety Area</u>
(16/34			(asphalt, concrete, etc)	(Single, Dual, DT, DDT)	(length off etc each end & total width)

#### Taxiways

(List A B C etc.)	(total width of twy safety areas)
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The runway and taxiway designation system is shown on (Fig., Exhibit) \_\_\_\_\_. The associated safety areas are shown on (Fig., Exhibit) \_\_\_\_\_.

#### D. Maintenance and Inspection Program

1. Inspection Program. 139.327(a) (Describe inspection procedures used to comply with this section.)

2. Personnel, Equipment, and Procedures. 139.327(b) (Describe equipment such as radio- and beacon-equipped vehicles. Indicate how airport information is provided to air carriers. Specify individuals/organization who perform various types of inspections of those items covered by FAR 139 and the training/experience/background needed to perform these functions.)

3. Recordkeeping. 139.327(c) Inspection records from daily, unusual-occurrence, and post-accident inspections described above shall be maintained on file for no less than 6 months after the inspection date at (location of records) and shall be made available for inspection by the FAA on request. (Include copies of inspection forms, work orders, and other documents which are used to document inspections and all corrective actions taken.)

#### 4. Safety Standards and Maintenance Procedures.

a. Pavement Areas. 139.305 The airport shall maintain and promptly repair the runway(s), taxiway(s), and the parking apron(s) available for air carrier use as follows:

1. Pavement edges will not exceed 3 inches difference in elevation between abutting pavement sections and between full strength pavement and abutting shoulders.

2. The pavement shall have no hole exceeding 3 inches in depth nor any hole the slope of which from any point in the hole to the nearest point at the lip of the hole is 45 degrees or greater as measured from the pavement surface plane, unless, in either case, the entire area of the hole can be covered by a 5-inch diameter circle.

3. The pavement shall be free of cracks and surface variations which could impair directional control of air carrier aircraft.

4. Mud, dirt, sand, loose aggregate, debris, foreign objects, rubber deposits, and other contaminants shall be removed promptly and as completely as practicable. This requirement does not apply to snow and ice accumulations and their control, including the associated use of materials such as sand and deicing solutions.

5. Any chemical solvent used to clean any pavement area shall be removed as soon as possible, consistent with the instructions of the manufacturer of the solvent.

6. The pavement shall be sufficiently drained and free of depressions to prevent ponding that obscures markings or impairs safe aircraft operations.

7. Emergency access roads [FAR 139.319(k)] designated for use for aircraft rescue and firefighting vehicles are as follows:

(List, if none, so state.)

(Describe how these roads are maintained in a condition that will support vehicles during all weather conditions.) (Although this requirement appears in the firefighting section of FAR 139, a description of the maintenance procedures for the roads may be more appropriate in this section of the ACM.)

b. Pavement Maintenance Procedures. (Describe resources, responsibility and procedures for maintaining pavement to the above standards, including reporting discrepancies, work orders if used, equipment availability, and responsibility for final inspection, approval of repairs and return to service.)

c. Safety Areas. 139.309 Safety areas are designated areas abutting the edges of a runway or taxiway and are intended to reduce the risk of damage to an aircraft inadvertently leaving the runway or taxiway. Runway and taxiway safety areas available for air carrier use shall be maintained as follows:

1. Each safety area is cleared and graded, and has no potentially hazardous ruts, humps, depressions, or other surface variations.

2. Each safety area is drained by (grading)(storm sewers) to prevent water accumulation.

3. Each safety area is capable under dry conditions of supporting snow removal equipment, aircraft rescue and firefighting equipment, and supporting the occasional passage of aircraft without causing major damage to the aircraft.

4. No objects are located in any safety area, except for objects that need to be located in a safety area because of their function. These objects are constructed, to the extent practical, on frangibly mounted structures of the lowest practical height with the frangible point no higher than 3 inches above grade. Nonfrangible objects within the safety areas are:

(List if any, and describe location, such as "Air National Guard arresting barrier equipment 1000 ft from approach end Runway 17L," or use drawing or sketch of airport.)

5. Runway and taxiway safety area dimensions as of December 31, 1987 were as follows, as shown on (Fig., Exhibit)

<u>Runway</u>	<u>Width</u>	<u>Length off Ends</u>
(16-34 etc.)	500'	16 - 1000', 34 - 850'

Taxiways

(A	118'
B	171'
etc.)	

6. Safety areas of no less than the above dimensions will be provided and maintained unless construction, reconstruction, or significant expansion of a runway or taxiway occurs in the future. In such cases, a safety area which conforms to the dimensions acceptable to the FAA shall be provided to the extent practicable at the time that construction, reconstruction, or significant expansion begins.

d. Safety Area Maintenance Procedures. (Describe resources, responsibilities and procedures for maintaining safety areas to the above standards, including reporting discrepancies, work orders, equipment availability, and responsibility for final inspection of repairs and return to service.)

e. Marking and Lighting. 139.311 Pavement marking, guidance signs, and lighting will be maintained on the airport for air carrier operations as follows:

1. Marking – All pavement markings will be in accordance with FAA AC 150/5340-1G, Standards For Airport Markings.

Runways will have at least the markings appropriate for the runway approach category, defined in FAR Part 77 as:

<u>Runway Approach Category</u>	<u>Marking Required</u>
Utility	
Visual	A(V) Centerline, Designation
Nonprecision Instrument	A(NP) Centerline, Designation, Threshold
Larger than Utility	
Visual	B(V) Centerline, Designation
Nonprecision Instrument	
Visibility Minimums	
> 3/4 Mi.	C Centerline, Designation, Threshold
< 3/4 Mi.	D Centerline, Designation, Threshold
Precision Instrument	PIR Centerline, Designation, Threshold, Fixed Distance, Touchdown Zone, Side Stripes

In addition, fixed distance marks are painted on runways longer than 4000' used by turbojets.

#### Air Carrier Runway Approach Categories

<u>Runway</u>	<u>FAR 77 Category</u>
<i>Examples</i>	
16	A(V)
34	A(NP)
8	C
26	PIR

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Taxiway marking - (describe, such as "Yellow centerlines and holding position marking no less than six inches wide on all taxiways, double yellow edge marking where appropriate, exit lines from runways.")

Displaced threshold marking - (describe, if any, such as "White displaced threshold marking on Runway(s) \_\_\_\_\_ as shown on Fig. \_\_\_\_.")

Relocated threshold and blast pad marking - ("Yellow chevrons" if any.)

2. (Describe procedures for marking maintenance, including availability of striping equipment, responsible organization, and inspection for conformance to the above requirements prior to reopening area to service.)

3. Guidance signs meet the standards of FAA A.C. 150/5340-18C and 150/5340-44E and are as shown on the Sign Plan on (Fig. \_\_\_\_, Exhibit \_\_\_\_, etc)

[The Sign Plan should: be easy to read and review, be drawn to scale with signs shown reasonably close to the actual position, show the runways, taxiways, aprons, and service roads which lead onto them, identify the existing and future runways and taxiways (consistent with the approved Airport Layout Plan) and any proposed changes to the designations, include a Table listing each sign's legend, size, style and type as listed in A.C. 150/5345-44E, show the airport name, sponsor name, and FAA approval date of the plan.]

4. Lighting - (Use a Table to describe system as MIRL, HIRL etc. plus taxiway lighting/reflectors. Describe rotating beacon colors and location on airport.)

<u>Runway and Taxiway Lighting</u>			
<u>Runway</u>	<u>Lighting System</u>	<u>Approach Lights</u>	
5-23	Medium Intensity	Medium Intensity with Runway	
Alignment Indicator Lights		(MAL S/RAIL) Runway	18-
36	HIRL	(FAA-owned MAL S/RAIL)	

Taxiway	<u>Lighting System</u>	
A	Medium Intensity Taxiway Lights (MITL)	
B	Green centerline reflectors	
C	MITL north of Rwy 5-23, blue edge reflectors	south
Y	Elevated edge reflectors	

5. (Describe lighting and guidance sign maintenance including availability of qualified electricians or electrical contractors, work orders, and inspection of repairs prior to return to service.)

## 6. Land and Hold Short Operations (LASHO)

*Describe the LAHSO currently in effect, in the following format:*

<u>Runway</u>	<u>Location Designation</u>	<u>Time</u>	<u>Condition</u>
14L	Prior to Rwy 4R/22L intersection	Day	Dry
32R	Prior to Rwy 4R/22L intersection	Day/Night	Wet
32R	Prior to Taxiway B2 intersection	Day/Night	Dry
4R	Prior to Rwy 14L/32R intersection	Day	Dry

*This table should include a brief paragraph verifying that marking and signs are in place in accordance with current Advisory Circulars, otherwise note that Order 7110.114 allows Air Traffic to continue existing LAHSO operations without the signs and marking only until July 1, 1998. The Letter of Agreement should NOT be included in the ACM.*

f. Traffic and Wind Direction Indicators. 139.323 A lighted wind cone(s) (and segmented circle) (is, are) installed on the airport (location). Traffic patterns are (standard) (nonstandard). (List ends if nonstandard and describe type and location of traffic pattern indicators, if required). (Describe maintenance procedures including work orders, availability of replacement cones, etc.)

g. Obstruction Removal, Marking and Lighting. 139.331 Any obstructions within the authority of the (certificate holder) in the airport imaginary surfaces, as defined by Part 77 of the Federal Aviation Regulations, will be removed or marked and/or lighted. However, removal, marking, and lighting is not required if it is determined to be unnecessary by an FAA aeronautical study.

1. The (individual, organizational unit) will obtain and review the updated Obstruction Chart and Obstruction Data Sheet published by the National Ocean Service to determine whether any new obstructions exist which have not been the subject of a "no-objection" airspace determination by the FAA. Local survey resources will be used as necessary to supplement this information. The following objects are required to be obstruction marked or lighted:

2. (Include Table or diagram of obstructions which require marking and/or lighting, excluding FAA facilities.)

3. (Describe maintenance of obstruction lighting for which airport is responsible and procedures for notifying owners of other lighted/marked obstructions when outages are reported.)

4. The airport imaginary surfaces defined by FAR Part 77 are protected by a height zoning ordinance adopted by (City, County, Joint Zoning Board etc.) (Describe how off-airport construction is controlled by notification to FAA as part of local building permit process or other means. Do not make the height zoning ordinance part of the ACM.)

5. (Describe organizational unit or individual responsible for submitting on-airport construction proposals to FAA for ALP approval. This process constitutes an "aeronautical study.")

5. Airport Condition Reporting. 139.339 Notices to Airmen (NOTAMs) are generated and controlled by the (Airport Manager, Maintenance Supervisor, Operations Branch, etc.) and issued through the \_\_\_\_\_ Flight Service Station. (Describe procedure for logging, monitoring, and cancelling NOTAMs, identify personnel authorized to issue. Also describe any other appropriate systems and procedures being used for disseminating airport condition information to air carriers such as telephone, autowriter, verbal, etc.) Reporting shall provide information on the following airport conditions which may affect the safe operation of air carriers:

- a. Construction or maintenance activity on movement areas, safety areas, or loading ramps and parking areas.
- b. Surface irregularities on movement areas or loading ramps and parking areas.
- c. Snow, ice, slush, or water on the movement area or loading ramps and parking areas.
- d. Snow piled or drifted on or near movement areas such that air carrier aircraft propellers, engine pods, rotors, and wingtips will not clear any snowdrift or snowbank as the aircraft's landing gear traverses any full strength portion of the movement area.
- e. Objects on the movement area or safety areas contrary to FAR 139.309.
- f. Malfunction of any lighting system required by FAR 139.311.
- g. Wildlife hazards on the airport such as large animals or flocks of birds. (Wildlife includes domestic animals out of the control of their owner.)
- h. Newly-created obstructions to air navigation.
- i. A copy of the form(s) used for logging and cancelling NOTAMs is included as (Exhibit, Fig.) No. \_\_\_\_.

## E. Operational Safety

1. Public Protection. 139.335 (Describe how airport complies with this Section.)

2. Ground Vehicles. 139.329

a. Only ground vehicles necessary for airport operations are permitted access to the movement areas and safety areas. (Include description of which vehicle operations are "necessary," such as airport security, fire-rescue, airport management/maintenance/operations, FAA maintenance, authorized contractors, etc.) Ground vehicle access to the movement area is controlled by the following: (briefly describe control of access points, signs, gates, marking etc.)

b. (Vehicle operations within the aircraft movement area are controlled through communications with the Control Tower or by an escort vehicle in communication with the Control Tower.) Vehicles will remain clear of the runway(s) and runway safety area(s) during aircraft landings and takeoffs.

c. [When the Control Tower is not in operation, operators of vehicles in the movement area will monitor [Common Traffic Advisory Frequency] and will remain clear of the runway and runway safety area during air carrier landings and takeoffs]. (This paragraph for part-time Tower locations only.)

d. Vehicles operating in the movement area at night are required to have operating flashing (list colors) beacons, or are escorted by a vehicle which is so equipped.

e. (Describe vehicle marking or other identification requirements for access to movement area.)

f. [Describe measures for controlling vehicles when it is not operationally practical to have two-way radio communication with the Control Tower, if such a procedure is to be used. See 139.329(c)(3).]

g. [Describe how airport insures that vehicle operators with access to movement area are familiar with airport's procedures for the operation of ground vehicles, and the consequences of noncompliance. (Consequences may be different for tenants, contractors, or employees.) See 139.329(e).]

h. [Describe records kept on movement area accidents or incidents involving air carrier aircraft and/or ground vehicles, such as police reports of investigation, special inspection reports after accidents, etc., and state where these records are for FAA inspection. See 139.329(f)].

i. (Describe vehicle control procedures within and through ILS critical areas.)

3. Safety During Construction and Maintenance. 139.341

a. The airport will mark and, if appropriate, light in a manner acceptable to the FAA:

1. Construction areas and unserviceable areas which are on or adjacent to any movement area or any other area of the airport on which air carrier aircraft may be operated;

2. Each item of construction equipment and each construction roadway which may affect the safe movement of aircraft on the airport;

3. Any area adjacent to a NAVAID that, if traversed, could cause derogation of the signal or the failure of the NAVAID.

b. The airport provides procedures for avoiding damage to existing utilities, cables, wires, conduits, pipelines, and other underground facilities as follows: (Describe) [See 139.341(a)(2)].

4. Protection of NAVAIDs. 139.333

a. The \_\_\_\_\_ Airport prevents the construction of facilities on the airport that, as determined by the FAA Administrator, would derogate the operation of electronic NAVAIDs, visual aids, and air traffic control facilities on the airport primarily through the process of prior notification to the FAA for approval of the change to the approved Airport Layout Plan. Construction is not authorized until an aeronautical study is completed and the FAA Airports office has approved the ALP revision.

b. NAVAIDs on the airport are protected from vandalism and theft primarily through airport perimeter and security fencing (list other procedures such as airport security patrols, natural barriers, etc.).

c. Interruption of visual and electronic signals of NAVAIDs is prevented, insofar as it is within the airport's authority, by:

1. (Identifying ILS critical areas with ILS holding position signs on taxiways other than at normal runway holding positions.)

2. (ILS critical area signs on roads or other vehicle access routes across critical areas.)

3. (Vehicle operator training sessions which include a description of ILS critical area dimensions and restrictions on entry during weather conditions involving a cloud ceiling below 800 feet and/or visibility less than 2 miles.)

4. (The airport's inspection program which includes a check of visual aids for blockage by objects or vegetation, and presence of warning signs at ILS critical area boundaries.)

F. Hazardous Materials 139.321

1. Cargo Handling. 139.321(a) The airport does not act as a cargo handling agent.

2. Fire Safety Standards. 139.321(b)

a. Procedures and devices required for the safe storing, dispensing, or otherwise handling of fuel, lubricants and oxygen are as follows:

1. Bonding:

(a) Prior to making any fueling connection to the aircraft, the fueling equipment shall be bonded to the aircraft by use of a cable thus providing a conductive path to equalize potential between the fueling equipment and the aircraft. The bond shall be maintained until fueling connections have been removed, thus permitting the reuniting of separated charges that could be generated during the fueling operation.

(b) In addition to the above, when fueling over the wing, the nozzle shall be bonded with the nozzle bond cable, having a clip or plug, to a metallic component of the aircraft that is metallically connected to the filler port. If there is no plug receptacle or means for attaching a clip, the operator shall touch the filler cap with the nozzle spout before removing the cap so as to equalize the potential between the nozzle and the filler port. The spout shall be kept in contact with the filler neck until the fueling is completed.

(c) When a metal funnel is used in aircraft fueling, it shall be kept in contact with both the fill nozzle and container to avoid the possibility of a spark at the fill opening. Plastic funnels shall not be used.

(d) When a hydrant service or cart is used for fueling, the hydrant coupler shall be connected to the hydrant system prior to bonding the fuel equipment to the aircraft.

(e) Bonding and fuel connections shall be disconnected in the reverse order of connection.

(f) Conductive hose shall be used to prevent electrostatic discharge but shall not be used to accomplish required bonding.

(g) When top loading tanks trucks through open domes, a bond shall be established between the loading piping and the cargo tank to equalize potentials. The bond connection shall be made before the dome is opened, and removed only after the dome is closed.

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(h) A bond connection shall be made between the cargo tank and the loading rack before any connections are made and shall remain in place throughout the loading operation.

## 2. Public Protection:

(a) No aircraft shall be refueled, defueled, or oil serviced while aircraft engines are running. No aircraft shall be warmed by application of heat or while such aircraft is in a hangar or congested area or in an enclosed space.

(b) No person shall smoke or permit any open flame within 100 feet of any aircraft undergoing fuel service or within at least 50 feet from any hangar or building.

(c) No person shall start the engine of any aircraft when there is any fuel on the ground under such aircraft.

(d) No person shall perform or allow performance of and refueling operation during an electrical storm.

(e) No person shall operate any radio transmitter or receiver or switch electrical appliances off or on in an aircraft during fueling or defueling.

(f) No person shall use any material or equipment during fueling or defueling of aircraft which is likely to cause a spark or ignition.

(g) No aircraft shall be fueled or defueled while passengers are on board the aircraft unless a passenger loading ramp is in place at the cabin door of the aircraft, the aircraft door is in an open position, and a cabin attendant is present at or near the cabin door.

(h) No airborne radar equipment shall be operated or ground tested on any area wherein the directional beam of high intensity radar is within 300 feet or low intensity radar (less than 50 kW output) is within 100 feet of another aircraft, an aircraft refueling truck or aircraft fuel or flammable liquid storage facility.

3. Control of access to storage areas: Each storage area shall be secured from unrestricted public access by physical barriers, fencing, continuous observation, or other acceptable means.

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Date:

## 4. Fire safety in fuel farm and storage areas:

(a) These areas shall be clearly identified by "Flammable, No Smoking" signs at access points.

(b) Shall be identified by grade labels and color coding in accordance with American Petroleum Standard 1542, "Airport Equipment Marking for Fuel Identification."

(c) Gasoline, oil, and solvent drums on receptacles shall not be stored on apron and ramp areas in excess of amounts actually needed as current stock. Any material of this type that is kept in subject areas will be kept enclosed and covered in a clearly marked and labeled housing of a design and type that meets the approval of \_\_\_\_\_.

5. Fire safety in mobile fuelers, fueling pits, and fueling cabinets:

(a) Fuel Storage Equipment and Facilities shall meet the following standards:

[1] Above-ground storage tanks shall be diked.

[2] Tanks shall be provided with adequate pressure relief venting.

[3] Adequate grounding points during tanker off-loading shall be provided.

[4] Hoses shall be approved by the National Fire Protection Association for aviation use.

[5] Nozzles shall be equipped with "dead man" controls and shall be stowed so as to minimize entry of foreign objects into nozzle tips, or equipped with dust caps.

[6] Electrical equipment and switches shall meet the National Electrical Code for use in an explosive atmosphere.

[7] Tank inlets shall be color-coded to identify fuel grade and shall be secured to allow operation only by authorized, trained personnel.

(b) Fueling Vehicles:

[1] A static discharge cable shall be provided to permit both bonding and grounding.

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Date:

[2] The engine exhaust system shall be in good condition and shall be located so as to minimize the hazard of fire in the event of leakage from the fuel

dispensing system of the vehicle or spillage or overflow of fuel from the vehicle fuel tank or the cargo tank.

[3] Vehicle brakes and parking brake shall be operable.

[4] Electrical wiring shall be insulated, supported, and protected against chafing. Vehicles with broken wiring, bulbs or light lenses shall be placed out of service.

[5] "No Smoking" signs shall be installed in the cab of the vehicle. Ash trays and cigarette lighters shall be removed from the vehicle.

[6] Tank vents shall be provided on dome covers and shall be operable.

[7] At least two NFPA-approved extinguishers with a minimum rating of 20-BC shall be provided on each fueler, readily accessible from the ground. Extinguishers located inside closed compartments shall be clearly identified by a sign on the exterior of the compartment in letters at least 2 inches high.

[8] Fuelers shall be parked with a separation of at least 10 feet between vehicles and at least 50 feet from the airport terminal, any aircraft cargo building, aircraft hangar or other airport structure housing the public which has windows or doors in the exposed walls.

[9] Dome covers shall be provided with weather tight gaskets or seals in good condition, and shall be installed with the hinge toward the front.

[10] Each fuel handling vehicle shall be conspicuously marked in letters of contrasting color with the word "Flammable" on both sides and rear of the cargo tank in letters at least 6 inches high. An emergency shutoff valve or control shall be provided on the exterior of the fueler and clearly labeled "Emergency Shutoff" in letters at least 2 inches high with the method of operation indicated by a placard reading "Push" or "Pull" as applicable. Each fuel handling vehicle will also be conspicuously marked on both sides and rear with the type and grade of fuel it contains.

[11] Dispensing nozzles shall be of the "dead man" type, equipped with a 100-mesh nozzle screen and, for overwing servicing of jet fuel, equipped with a nozzle tip meeting SAE specification AS 1852.

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Date:

[12] Grade labels and color coding shall be in accordance with American Petroleum Institute Standard 1542, "Airport Equipment Marking for Fuel Identification". Vehicle tanks shall be clearly labeled "Flammable" on both sides.

[13] Hoses shall be designed for aviation use and approved by the National Fire Protection Association under NFPA Standard No. 407. Hoses shall be labeled with the manufacturer's name, design pressure, and "Aircraft Fueling Hose." Hoses shall be maintained in good condition, free of blistering, saturation, cuts or nicks which may have damaged the cover or any abrasion which exposes a significant amount of reinforcement material. Radiator hose clamps shall not be used for hose connections, only swaged fuel hose fittings are acceptable.

[14] When malfunction of refueling equipment is detected all refueling shall cease immediately and the malfunction remedied or entire unit replaced by another. Any malfunctions or irregularity detected on or within the aircraft being serviced will be brought to the attention of the aircraft owner or operator immediately.

[15] Tires shall be in good condition and not worn beyond tread-wear indicators.

[16] During refueling or defueling, fuel handling vehicles shall be so placed so as to be readily removable in event of fire so as to permit direct driving away from the loading of fueling position. Not more than one refueler shall be positioned to refuel each wing of an aircraft and not more than two refuelers shall be positioned to serve the same aircraft. When high capacity aircraft are refueled, additional refuelers shall not be parked or positioned within 100 feet from the aircraft served and then only in areas approved by

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(c) Fixed Dispensers:

[1] Fire extinguishers shall be provided near the dispensing equipment in quantity and capacity equal to the recommendations of the National Fire Protection Association in Standard 407, "Aircraft Fuel Servicing."

[2] Dispensing equipment shall be grounded. A bonding wire shall be provided.

[3] Electrical equipment shall meet the requirements of the National Electrical Code for use in an explosive atmosphere.

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Date:

[4] Dispensing equipment, piping and valves shall be identified by grade labels and color coding in accordance with American Petroleum Institute Standard 1542, "Airport Equipment Marking for Fuel Identification."

[5] Self-service dispensers shall be equipped with a positive system to prevent unauthorized use and with step-by-step posted instructions for use of the equipment, including action to be taken in the event of a fuel spill.

3. General Requirements and Fire Protection:

a. Fire extinguishers shall be inspected annually and recharged if necessary. Loss of tamper wires shall be grounds for placing an extinguisher out of service. Extinguishers shall be equipped with current inspection tags.

b. Fueling shall be performed only outdoors.

c. Fuel leaks on vehicles shall be grounds for placing the vehicle out of service.

d. Speed limits on aircraft parking ramps are \_\_\_\_\_ mph and in the vicinity of aircraft \_\_\_\_\_ mph.

e. Fuelers shall be parked in designated areas at least 50 feet from buildings and with at least 10 feet separation between vehicles.

f. Crews engaged in the fueling and defueling of aircraft, the filling of dispensing equipment or dumping into storage with aviation fuels shall exercise extreme caution to prevent spills. When spills occur, servicing will cease and spills removed, or absorbed with suitable materials.

4. Approval of Installations and Equipment:

a. The prospective tenant shall show compliance with these standards by submissions of plans and specification to the (City/County) of \_\_\_\_\_ and shall receive written approval prior to starting any construction or installation.

b. All equipment, installations and training shall continuously meet these standards, and all facilities and records pertaining to fueling shall be made available to authorized representatives of the (City/County) of \_\_\_\_\_ at all times during normal business hours.

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Date:

5. Compliance and Surveillance. 139.321(c) The \_\_\_\_\_ Airport requires all fueling agents to comply with the above standards by means of periodic inspections by \_\_\_\_\_. (Describe how correction of noted deficiencies or hazards are corrected).

6. Fuel Safety Inspection Program. 139.321(d) Fuel safety inspections are conducted once every three months of both mobile fuelers and fuel farms are recorded on report forms shown as Exhibit(s) \_\_\_\_\_. These reports are kept on file in \_\_\_\_\_ for 12 months and will be made available for FAA inspection upon request.

7. Fuel Safety Training and Certification. 139.321(e) and (f) Each fueling agent shall have at least one supervisor attend an aviation fuel training course, acceptable to the FAA, in fire safety. This supervisor shall in turn give at least on-the-job training to all other employees who fuel aircraft, accept fuel shipments or otherwise handle fuel. Certification of this training shall be obtained by \_\_\_\_\_ annually and the records of the training will be kept by \_\_\_\_\_ and made available for inspection by the FAA on request.

8. Corrective Actions. 139.321(g) The \_\_\_\_\_ Airport shall require each tenant fueling agent to take immediate corrective action whenever the airport becomes aware of noncompliance with a standard required by these standards. Each tenant fueling agent shall take immediate corrective action to comply with these standards. The \_\_\_\_\_ Airport shall notify the FAA Regional Airports Division Manager immediately through the assigned Airport Certification Safety Inspector when noncompliance is discovered and corrective action cannot be accomplished within a reasonable period of time.

9. Exceptions to Fire Safety Training. 139.321(h)  
Air carriers operating under Part 121 or Part 135 are exempt from the training requirements of 139.321(b)(6) and as outlined in 139.321(e).

G. Aircraft Rescue and Firefighting 139.315, 139.317, 139.319

1. Index Requirement. 139.315 The Index for aircraft firefighting and rescue is \_\_\_\_\_, based on an average of 5 or more scheduled departures per day by an air carrier using the (list the aircraft, such as DC-9-30, Boeing 727, etc.) [If the airport does not have scheduled operations by over-30 seat aircraft, describe the Index of protection provided. If the airport has less than five average daily departures of air carrier aircraft in a single Index group, describe the Index determined by 139.315(c)(2).]

2. Hours of Operation. Rescue and firefighting capability is provided (list hours and days that protection is available if less than 24 hours daily.) (during operations of air carrier aircraft with more than 30 passenger seats.) (Use the following if protection is provided on a standby basis for air carrier operations outside normal hours of operation - "Vehicles and personnel will stand by at the airport from no less than 15 minutes prior to scheduled arrival until the aircraft reaches the terminal area, and again from departure until 15 minutes minimum after the actual departure." Describe any "prior permission" requirement).

3. Equipment and Agents. 139.317 ARFF vehicles, agent quantities, and discharge capacities are listed on Table \_\_\_\_\_.  
(List backup vehicles and show they are equal in agent type and quantity, response time, communications, and discharge rate.)

4. Operational Requirements. 139.319

a. Increase in Index. If an increase in the average daily departures or the length of air carrier aircraft would result in an increase in the Index required by FAR 139, the Airport shall comply with the increased requirements before authorization is given to the air carrier concerned.

b. Reduction in rescue and firefighting. [Describe procedures used if airport reduces Index during certain periods in accordance with 139.319(c) and (d), or state that an Index reduction procedure is not used.]

c. Vehicle Communications. Each required and backup firefighting vehicle is equipped with two-way radio equipment for communication with:

1. The Control Tower. (If applicable, and list freqs.)
2. Each other required emergency vehicle. (If applicable)
3. Other stations specified in the Airport Emergency Plan. (list, including frequencies)

d. Vehicle marking and lighting. Each required vehicle is equipped with a flashing or rotating beacon and is painted in colors to enhance contrast with the background environment.

e. Vehicle readiness. Each vehicle and its systems is maintained in an operational condition during all air carrier operations by (briefly describe maintenance facilities, priority of vehicles by City maintenance shop, airport ground vehicle maintenance department, etc. Describe vehicle equipment shelter/station and provisions for protection against freezing temperatures.) Any required vehicle which becomes inoperative shall be replaced immediately with equipment having at least equal capabilities in agent quantity, response time, discharge rate, and communications. If replacement equipment is not available immediately, the (identify responsible individual or organization) shall notify the FAA Airports Division Manager through the Airport Certification Safety Inspector and each air carrier using the airport in accordance with FAR 139.339 and paragraph D.5 of this Manual. If the required Index level of capability is not restored within 48 hours, the Airport, unless otherwise authorized by the FAA, shall limit air carrier operations on the airport to those compatible with the Index corresponding to the remaining operative rescue and firefighting equipment.

f. Response requirements. The airport fire department will respond to each emergency, for which procedures have been established in the Airport Emergency Plan, during periods of air carrier operations and will demonstrate compliance with response requirements when requested by the FAA. Within 3 minutes from the time of an alarm, (at least one) (the) required vehicle can reach the midpoint of the farthest runway serving air carriers from its assigned post, or reach any other specified point of comparable distance on the movement area which is available to air carriers, and begin application of foam, dry chemical, (or Halon 1211). (Within 4 minutes from the time of alarm all other required vehicles can reach the same point from their assigned post and begin application of foam, dry chemical, (or Halon 1211).

g. Off-Airport ARFF Responses. An ARFF response (i.e. by any required vehicle or personnel) to non-aviation incidents, such as structural fires or traffic accidents, during air carrier operations may result in a violation of FAR 139. An off-airport ARFF response to an aircraft incident or accident may be a Deviation as defined by FAR 139.113, and will be conducted only if (City fire department equipment and personnel) are not adequate to meet the demands of the aircraft emergency. In such cases, if continuing air carrier operations are not fully protected in terms of number of required vehicles, agent quantities, trained personnel, communications, response time, and other requirements of FAR 139.319, the (Shift Captain, Fire Chief, etc.) will report the off-airport response to the (Airport Manager, Operations Duty Officer, etc.), who will issue a NOTAM informing air carriers of the airport ARFF Index level corresponding the remaining equipment and personnel. As soon as possible thereafter, all vehicles will returned to service at their assigned post and the NOTAM will be cancelled. If any air carrier operation was not informed of the off-airport response, it will be treated as a Deviation and will be reported to the FAA by the (Airport Manager, Fire Chief, etc.) as required by paragraph A.5 of this Manual.

(The above paragraph is not required for "no-service" full-certificate airports which have published a "prior permission" requirement for air carrier operations, but the ACM must contain notification procedures to the airport manager so that any request for such permission is denied while firefighting equipment/personnel are not available.)

h. Rescue and Firefighting Personnel Training and Qualification. Each person assigned to rescue and firefighting duty will be trained in the following subject areas prior to assignment to either temporary or permanent duty. Annual recurrent training will be conducted in the same subject areas. Training records documenting completion of these requirements will be maintained (location) along with a complete copy of the Training Curriculum. The Curriculum identifies the instructors for each subject area, training resources and objectives for each subject area, and hours of initial and recurrent training required in each subject.

1. Airport familiarization.
2. Aircraft familiarization.
3. Rescue and firefighting personnel safety.
4. Emergency communications systems on the airport, including fire alarms.
5. Use of the fire hoses, nozzles, turrets, and other appliances.
6. Extinguishing agent application.
7. Forced entry into aircraft, ventilation of aircraft, extraction of persons from aircraft, and aircraft evacuation assistance.
8. Firefighting operations.
9. Adapting and using structural rescue and firefighting equipment for aircraft rescue and firefighting.
10. Aircraft cargo hazards (hazardous materials in air shipments).
11. Firefighter duties under the Airport Emergency Plan.
- i. Live fire training. All rescue and firefighting personnel participate in live-fire training at least every 12 months. (State location of fire pit and describe it.)
- j. Medical Training. [Describe medical training program for required personnel. See 139.319(j)(4)].

k. Personnel Availability. [Describe number of rescue and firefighting personnel on duty during air carrier operations. See 139.319(j)(5)]. This number assures that ARFF personnel can meet response times and minimum agent discharge rates required by FAR 139 and this Manual.

l. Emergency Alerting System. [Describe the system and its maintenance. See 139.319(j)(6). If a part-time Control Tower is in operation, describe alerting procedures when Tower is closed, including change in radio frequency to CTAF].

m. Firefighter protective clothing and equipment. Each firefighter is equipped with a proximity suit consisting of aluminized jacket, pants, hood, gloves, and firefighter's boots. (Describe type and number of Air Paks available on each vehicle, and verify that they are the "positive pressure" type, not pressure demand.)

H. Snow and Ice Control. 139.313 (Prepare snow and ice control plan using guidance in A.C. 150/5200-21. For additional guidance, also refer to ATA Snow Removal Handbook.) (Include snow and ice control plan only if advised in writing by FAA that plan is required. If emergency access roads are designated in Section D.4, provide procedures in the Plan for snow and ice control on these roads.)

I. Airport Emergency Plan. 139.325 (See A.C. 150/5200-31, which provides an acceptable means of compliance. Make the Emergency Plan a completely separate section to permit distribution to other agencies as a "stand-alone" document with separate page numbering and required exhibits, including grid map. Include water rescue plan only if advised in writing by FAA that it is required. Include date of latest annual AEP review and planned date for the next full scale exercise of aircraft accident portion of plan - not later than three years after the most recent full-scale exercise.)

(Do not include in the AEP material such as a discussion of the firefighter training program or anything else not necessary to the emergency response. Start each section of the Plan on a new page. Do not refer to maps or other material elsewhere in the ACM because agencies on the emergency plan distribution may not have the ACM.

Grid maps - consider using a U.S. Geological Survey quadrangle chart and modify it by adding local street or highway names, identifying hazardous or impassable areas and routes by shading or cross-hatching, and identifying access routes to various areas. Include at the end of the Plan a distribution list and use the list as a cover sheet for transmitting revisions.

Call lists - if a call list for an emergency plan is lengthy, avoid including it as part of the plan, but state who maintains the list, how it is updated, and who will perform the emergency notifications.)

Note new requirement for emergency plans - "Instructions for response to failure of power for movement area (rwy, twy) lighting," 139.325(b)(7).

J. Wildlife Hazard Management. 139.337

1. Ecological Study Requirements. The airport will provide for an ecological study acceptable to the FAA when any of the following events occurs on or near the airport:

a. An air carrier aircraft experiences a multiple bird strike or multiple engine ingestion of birds within 10,000 feet of the airport at an altitude of less than 500 feet above airport elevation.

b. An air carrier aircraft experiences a damaging collision with wildlife other than birds, or

c. Wildlife of a size or in numbers capable of causing an event described above is observed to have access to any airport flight pattern or movement area.

2. Report Processing. Reports of any of the above occurrences shall be forwarded to (identify person by position title or organizational unit). The (identify organizational unit or units or individual) shall take immediate measures to alleviate wildlife hazards whenever they are detected. (Briefly describe any current procedures or measures taken to control wildlife, such as bird habit modification, scaring devices, deer fencing, etc.)

3. Ecological Study Request. The need for an ecological study will be reported by (individual, organizational unit) to the FAA Airports Division, which will notify the Office of Animal Damage Control of the U.S. Department of Agriculture. The OADC will conduct the study, which will be furnished to the FAA for a decision on whether a wildlife hazard management plan is needed, based on the study results, the aeronautical activity at the airport, and the views of the airport and airport users.

4. Wildlife Hazard Management Plan. If the FAA determines that a plan is needed, the airport will formulate and implement a plan using the ecological study as a basis. This task is the responsibility of (identify individual or organizational unit). The plan will be carried out as required by FAR 139.337(d).

K. Maintenance of Certification Manual.

1. Currency. 139.207(a) The (identify individual by title or organizational unit) will keep this Manual current at all times and will submit proposed revisions to the FAA Airports Division for approval no less than 30 days prior to the proposed effective date, unless a shorter filing period is allowed by the FAA. After FAA approval, the revisions will be printed and distributed.

2. Availability and Distribution. 139.207(b), (c), (d), and (e) One complete and current copy of this Manual will be maintained on file in the (Airport Manager's office, other location) and will be available for inspection by the FAA on request. All airport personnel with responsibilities under this Manual will be furnished with current copies or applicable portions.

Distribution

(Director of Aviation  
Operations Supervisor  
Maintenance Supervisor  
Fire Chief  
FAA Airports Division  
Airport Traffic Control Tower (if applicable)  
etc.

(Also list agencies receiving only the Emergency Plan, such as Police, Fire Dept., Hospital, Ambulance, EOD, Central Dispatch or Emergency Operations Center etc.)

Airport Certification Manual  
Airport

Page Revision Log

Revision Number	Date FAA Approved	Date Issued	Description of Revision
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Original		New Manual	
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## FAR 139 Cross-Reference

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